

DOCUMENT RESUME

ED 254 260

JC 840 625

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TITLE Medical Office Laboratory Procedures: Course Proposal. Revised.
INSTITUTION Philadelphia Community Coll., Pa.
PUB DATE Jun 83
NOTE 69p.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Allied Health Occupations Education; *Course Content; Course Descriptions; *Course Objectives; *Medical Laboratory Assistants; Two Year Colleges

ABSTRACT

A proposal is presented for a Community College of Philadelphia course, entitled "Medical Office Laboratory Procedures," which provides a laboratory introduction to microscopic and chemical analysis of blood and urine as performed in the physician's office. Following a standard cover form, a statement of the purpose of the course discusses course content and the value of the clinical laboratory experience. Next, the course goals are listed and the course units are outlined. Finally, eight course level objectives are presented along with related intermediate performance objectives. The eight course level objectives indicate that the student will: (1) appraise safety conditions in the office or laboratory; (2) describe specimens tested in the laboratory and the kinds of tests used on each; (3) collect specimens and instruct a patient on collection procedures; (4) describe medical office laboratory equipment; (5) perform tests on urine; (6) perform hematology tests on blood samples; (7) list at least five coagulation studies used in physicians' offices; and (8) perform microbiological procedures such as culturing specimens; setting up sensitivity tests, making and staining smears; and differentiating between classifications including virus, bacteria, fungus, and parasite. (LAL)

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MEDICAL OFFICE LABORATORY PROCEDURES:
COURSE PROPOSAL

Eleanor Baker

COMMUNITY COLLEGE OF PHILADELPHIA

Revised, June 1983

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COMMUNITY COLLEGE OF PHILADELPHIA

COURSE PROPOSAL COVER FORM

Please use this cover form when submitting the entire course for approval. Attach the course design, objectives, and any other elements to this form.

Name of Proposal Writer Eleanor Baker
 Suggested Course Title Medical Office Laboratory Procedures
 Number MA 250
 Related Program(s) Medical Assisting, Grade II
 Recommended Starting Date Existing Course
 Day Yes Evenings No Weekends No
 Is it offered every semester? Yes If no, state when Fall Only
 Does this course replace another course? No X If yes, name the course.

Department Name Medical Assisting

Department Head Signature _____ Date _____

Division Name Life Sciences and Allied Health Services

Division Director Signature _____ Date _____

Provost Signature _____ Date _____

Course Prerequisites MA 101 and MA 131

Is course open to all students meeting requirements? Yes If no, please explain. Medical Assisting Grade II Students Only

Limit on Class Size:

A. Contract _____

B. Laboratory Constraint 15

C. Clinical Constraint _____

Expected Enrollment: 20

Special Costs involved in offering course (itemize) _____

Credit Hours 3 Lecture Hours 1

Laboratory Hours 6 Clinical Hours 8

Career Yes General Education No Support No

Catalog Description

Laboratory introduction to microscopic and chemical analysis of blood and urine as performed in the physician's office.

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MEDICAL OFFICE LABORATORY PROCEDURES

STATEMENT OF PURPOSE

The content of this course is designed to provide the student with the basic background theory and practice necessary to perform simple laboratory tests in the physician's office and to collect, preserve and prepare specimens to be sent to outside laboratories. The relationship between laboratory performance and the value of accurate test results in assisting the physician in diagnosis is stressed.

It is hoped that the student will demonstrate proficiency in patient education within the scope of his/her ability and limitations and exercise awareness of the importance of the conscientious performance of accurate test procedures. Each student will, through the clinical portion of this course, gain valuable experience in a clinical laboratory setting which is designed to give the student maximum exposure to basic laboratory procedures which include veinapuncture and urinalysis techniques.

MEDICAL OFFICE LABORATORY PROCEDURES

GOALS

1. The student will maintain standards of safety in all work situations. (CLO #I)
2. The student will identify various types of laboratory specimens. (CLO #II)
3. The student will perform laboratory roles of specimen collection, preparation, and patient instruction. (CLO #III)
4. The student will describe laboratory equipment and its relationship to specimen testing. (CLO #IV)
5. The student will perform screening and specialized tests on urine. (CLO #V)
6. The student will perform hematological blood tests. (CLO #VI)
7. The student will perform chemical evaluations on blood, serum and plasma. (CLO #VII)
8. The student will perform microbiological procedures. (CLO #VIII)
9. The student will realize the importance of accurate, careful testing of specimens. (CLO #I)

MEDICAL OFFICE LABORATORY PROCEDURES

COURSE OUTLINE

I. Laboratory Orientation and Safety (CLO #I, #II, #III)

A. General Safety Precautions

1. Fire
2. Centrifuges
3. Pipettes
4. Needles and syringes
5. Reagents
6. Specimens

B. Orientation to Laboratory Procedures

1. Test request classifications
2. Blood collection techniques
3. Laboratory equipment
4. Importance of accuracy

II. Principles of Urinalysis (CLO #III, #V)

A. Anatomy and Physiology of Urinary Tract

1. Urine composition
2. Thresholds

B. Urine Specimen Collection

1. Patient instruction
2. Specimen preservation

MEDICAL OFFICE LABORATORY PROCEDURES

Course Outline cont.

C. Basic Urinalysis Procedure

1. Physical properties
2. Chemical properties
3. Urinary sediment
4. Controls

D. Special Urinalysis Procedures

1. Clinitest
2. S.S.A. (Sulfasalicylic acid)
3. Acetest
4. Urine pregnancy testing

III. Principles of Hematology (CLO #IV, #VI)

A. Formation and Function of Blood

1. Cellular components
2. Appearance
3. Use of anticoagulants
4. Physiological properties
5. Characteristics in disease

B. Hematocrit Determination

1. Procedures
2. Equipment use and care
3. Normal value

MEDICAL OFFICE LABORATORY PROCEDURES

Course Outline cont.

C. Hemaglobin Determination

1. Procedures
2. Equipment use and care
3. Use of controls
4. Normal values

D. Differential Procedures

1. Slide/film making
2. Staining procedures

E. Coagulation Studies

1. Prothrombin
2. Clot retraction
3. Bleeding times
4. Normal values

F. Blood Groups

1. ABO blood group system
2. Rh blood group system
3. Disease related to blood groups

IV. Principles of Chemistry (CLO #IV, #VII)

A. Formation and Function of Plasma and Serum

1. Appearance
2. Physiological properties
3. Preservation - serum/cellular shift
4. Disease profiles

MEDICAL OFFICE LABORATORY PROCEDURES

Course Outline cont.

B. Office Laboratory Equipment

1. Care and usage
2. Standardization
3. Importance of controls

C. Glucose Determination

1. Clinical significance
2. Various specimen collection procedures
3. Methods of determination
4. Use of Controls
5. Normal values

D. Nitrogenous Compounds (non-protein nitrogen)

1. Tests in classification
2. Clinical significance
3. Normal values

E. Nitrogenous Compounds (protein nitrogen)

1. Tests in classification
2. Clinical significance
3. Normal values

F. Lipids

1. Tests in classification
2. Clinical significance
3. Normal values

MEDICAL OFFICE LABORATORY PROCEDURES

Course Outline cont.

G. Enzymes

1. Tests in classification
2. Clinical significance
3. Normal values

V. Principles of Microbiology (CLO #VIII)

A. Classification Within Area

1. Virus
2. Bacteria
3. Fungus
4. Parasites

B. Specimen Collection

1. Procedures
2. Precautions
3. Preservation
4. Disposal

C. Specimen Preparation

1. Culture and sensitivity
2. Making, staining and preservation of smears

MEDICAL OFFICE LABORATORY PROCEDURES

BIBLIOGRAPHY

Frederick, P. and Kinn, M. The Medical Office Assistant.

Philadelphia: W.B. Saunders, 1981.

Zakus, S.M. Clinical Skills and Assisting Techniques for the Medical Assistant. St. Louis: C.V. Mosby, 1981.

Free, A.H. and Free, B.S. Urodynamics. Elkhart, In: Miles Laboratory, 1979.

Carb, S. Laboratory Tests in Common Use. New York: Springer Publishing, 1979.

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Course Level Objective

Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

I



The student will appraise safety conditions in the office or laboratory. To be rated as acceptable, the appraisal must include: 1, fire; 2, instruments; 3, equipment; 4, reagents; and 5, specimens.

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # I

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will analyze fire safety procedures common to an
office or laboratory. To be rated as acceptable the student
must: 1, name at least three types of office/laboratory fires;
2, state at least one reason each type has its name; 3, state
the fire code symbol for each named type of fire; and 4, state
at least two ways to sound a fire alarm.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # I

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will state a procedure to be used upon finding
a person on fire. To be rated as acceptable, the student
must state how to suffocate flames using a fire blanket,
rug or heavy coat.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # I

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

The student will **safely** use needles, syringes and other instruments. To be **rated** as acceptable, this must include:
1, using **sterile** techniques; when handling all needles, syringes, and **other** instrument guarding against self inoculation when using needles and other instruments; and
3, always **destroying** and **disposing** of throwaway instruments.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # I

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will list safety rules for the use and handling of laboratory reagents. To be rated as acceptable, the list must include: 1, at least five types of reagents commonly used; 2, at least one storage procedure for each type; 3, at least one precaution unique to each type reagent; and 4, at least one disposal procedure given with reagent or as stated in at least one published source.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # I

INTERMEDIATE PERFORMANCE OBJECTIVE# 6

The student will state safety rules for handling of
laboratory specimens. To be rated as acceptable, the
statement must include: 1, types; 2, storage; and
3, disposal.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

Course Level Objective

Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

II



The student will describe specimens tested in the laboratory. To be rated as acceptable; the student must: 1, describe the types of specimens commonly used; and 2, state which tests are performed on each specimen.

COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will state the composition of urine as given in

Clinical Skills and Assisting Techniques for the Medical

Assistant by S.M. Zakus, 1981, p. 200-216.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will list at least five tests performed on urine samples.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

The student will analyze serum and plasma. To be rated as acceptable, the student must: 1, state how plasma and serum differ; and 2, list at least four tests performed on plasma and at least ten tests performed on serum.

NÓ.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

The student will describe body fluids and secretions. To be rated as acceptable, the description must include a statement on each of the following: 1, sputum; 2, nasopharyngeal secretions; 3, sweat; 4, vaginal secretions; 5, exudates; 6, synovial fluid; 7, cerebrospinal fluid; 8, transudates; and 9, semen.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will list a minimum of one test performed on each of the following: 1, sputum; 2, nasopharyngeal secretions; 3, sweat; 4, sweat; 4, vaginal secretions; 5, exudates; 6, synovial fluid; 7, cerebrospinal fluid; 8, transudates; and 9, semen.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 6

The student will describe a fecal stool. To be rated as
acceptable, the description must include: 1, at least two
macroscopic, at least three microscopic and at least five
chemical properties.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # II

INTERMEDIATE PERFORMANCE OBJECTIVE# 7

The student will list at least three tests performed on
fecal stools.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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Course Level Objective

Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

III



The student will perform laboratory roles. To be rated as acceptable, the student must; 1, collect specimens; and 2, prepare and instruct a patient or patient representative on collection procedures.

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# I

Given a laboratory request form, the student will instruct a patient or patient representative on pretest procedures and precautions. To be rated as acceptable, the student must explain procedures and precautions in a way that is supported by at least one published source. Further, the student must check to ascertain that each procedure and each precaution was understood.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will instruct the patient or representative on
the technique for obtaining a urine sample from the patient.

To be rated as acceptable, the instruction must follow both
the content and procedures given in Clinical Skills and
Assisting Techniques for the Medical Assistant, (1981 p. 200-
216, 134-137).

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

Given a urine sample for outside analysis, the student will
prepare the sample for transfer to a laboratory. To be rated
acceptable, the student must: 1, transfer the urine to the
appropriate container; 2, add a preservative; 3, label; and
4, address the sample for shipment.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

The student will perform a capillary puncture on the finger
of a patient. To be rated as acceptable, the student must
perform the capillary puncture using the process given in
Clinical Skills and Assisting Techniques for the Medical
Assistant by S.M. Zakus (1981, p. 220-222)/

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will perform a veinpuncture on a patient using
a vacutainer set up. To be rated as acceptable, the student
must perform the veinapuncture using the process given in
Clinical Skills and Assisting Techniques for the Medical
Assistant by S.M. Zakus (1981. p. 226-229).

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 6

Given a blood sample for outside analysis, the student will prepare the sample for transfer to a laboratory. To be rated as acceptable, the student must: 1, spin down the sample off on a clot; 2, separate the serum from the cells; and 3, label and refrigerate the sample until picked up or delivered.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 7

The student will collect a bacteriological specimen, for
analysis. To be rated as acceptable, the student must perform
the culture collection techniques using the procedure given in
Clinical Skills and Assisting Techniques for the Medical
Assistant by S.M. Zakus (1981, p. 142-144). Further the
student must state at least three precautions to be observed
during specimen collection.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # III

INTERMEDIATE PERFORMANCE OBJECTIVE# 8

Given a laboratory request the student will instruct the
patient or representative on the procedure for obtaining
a stool specimen. To be rated as acceptable, the instruction
must follow the procedure given in Clinical Skills and
Assisting Techniques for the Medical Assistant by S.M. Zakus
(1981, p. 138-139).

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

Course Level Objective

Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

IV



The student will describe medical office laboratory equipment. To be rated as acceptable, the equipment description must include: 1, types; 2, care and use; 3, standardization; and 4, importance of controls.

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # IV

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will identify at least twelve pieces of medical
office related laboratory equipment. To be rated as acceptable,
the student must identify each peice of equipment by
manufacturer and state a primary area of use of each.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # IV

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will maintain laboratory equipment. To be rated
as acceptable, the student must clean equipment and cover
and/or return equipment to storage area when applicable.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # IV

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

The student will standardize all equipment before using. To
be rated as acceptable, the student must: 1, state at least
one reason why equipment must be standardized; 2, standardize
the equipment using prescribed materials and calculation; and
3, describe at least one action student should take if
equipment does not standardize.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # IV

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

The student will state at least two reasons why controls are
used in laboratory tests.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

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COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # IV

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will list at least three precautions a medical
assistant must practice when running a control on a laboratory
test.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # IV

INTERMEDIATE PERFORMANCE OBJECTIVE# 6

The student will perform accurate laboratory tests. To be
rated as acceptable, the performance must include:

1, standardizing the equipment before using; 2, running a control
with each test; 3, following prescribed procedures for each
test; and 4, reporting the accuracy of the finding within
stated limits for test or equipment.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
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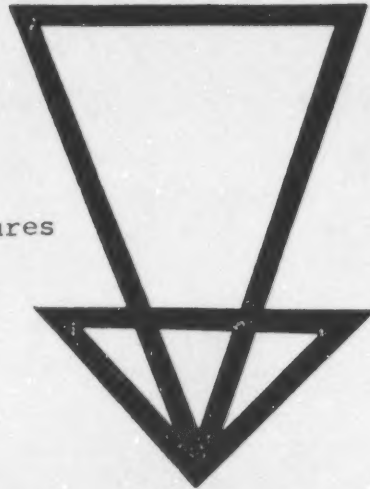
Course Level Objective

Course/Package Name
Medical Office

Laboratory Procedures

CLO Identification

V



The student will perform **tests** on urine. To be rated as acceptable, the student must identify and state the significance of abnormal findings when testing for: 1, physical properties; 2, chemical properties; 3, urinary sediment; and 4, hormone levels.

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # V

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will identify and explain a function of components
of the urinary system. To be rated as acceptable, the student
must 1, identify a parts of the urinary tract including:
ten parts of the kidney and also the bladder, ureter, and
urethra; 2, explain a function of each part; and 3, describe
urinary system thresholds.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # V

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

Given a urine sample, the student will determine its
physical properties. To be rated as acceptable, the results
must include: 1, color; 2, odor; 3, appearance; and 4, specific
gravity matching those which have been predetermined.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # V

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

Given a urine sample, the student will determine its chemical properties. To be rated as acceptable, the student will use N-Multistix or Chemstrip and obtain results matching those which have been predetermined.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # V

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

Given a urine sample with abnormal chemical values, the student will perform quantitative chemical analysis. To be rated as acceptable, the student must use a urine test dipstick and responding to its indications of abnormality select an appropriate specific test to identify the degree of abnormality.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Prodedures

COURSE LEVEL OBJECTIVE # V

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will perform a pregnancy test using a urine sample.

To be rated as acceptable, the student must determine the

level of HCG present in the sample and also monitor test

accuracy using a control.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
4.			
5.			

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # V

INTERMEDIATE PERFORMANCE OBJECTIVE# 6

Given a urine sample containing sediment, the student will
determine kinds, and amounts of organized and unorganized
sediment present in the sample. To be rated as acceptable,
the student must obtain results consistent with predetermined
values for that sample.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
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Course Level Objective

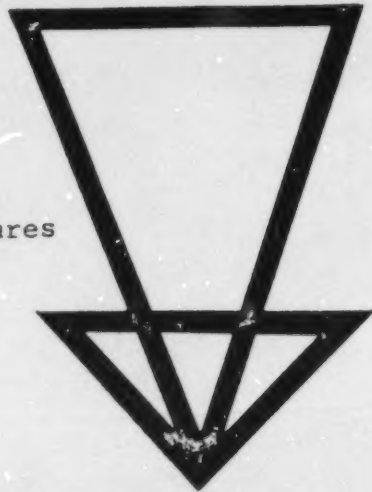
Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

VI



The student will perform hematology tests on blood samples. To be rated as acceptable, the student must identify and describe the significance of normal and abnormal findings.

COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will identify cellular components of blood. To
be rated as acceptable, the student must 1. identify red
blood cells, white blood cells, and platelets; 2. state at
least one function of each; and 3, describe at least two
diseases and consequences associated with abnormal findings
each.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

Given a blood sample, the student will perform a hemoglobin
test using the Bio-Dynamics method. To be rated as acceptable,
the student must determine the hemaglobin level within ± 2 gms
of the predetermined level using the process provided with the
Bio-Dynamics hemoglobin Kit.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
3.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedure

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

Given a blood sample, the student will perform a
microhematocrit test. To be rated as acceptable, the student
must determine the hematocrit level, within 2% of its
predetermined value, using the process given in Zakus,
(Clinical Skills and Assisting Techniques for the Medical
Assistant, 1981, pp. 220-222).

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

The student will describe the normal range of hematology
blood test values. To be rated as acceptable, the student
must describe values for: 1, hemoglobin; 2, hematocrit;
3, white blood count; 4, red blood count; 5, differential
cell count; 6, clot retraction; and 7, bleeding times. In
addition, the student must indicate any age, sex, or other
condition which influence these values.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will prepare a blood smear for differential determination. To be rated as acceptable, the student must make a smear using the process described in a handout adapted from (Clinical Prodedures for Medical Assistants by Kathy Bonewit, 1981, pp. 309-313). The student must also use one of the Wright stains on the slide using the process recommended by the manufacturer.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

The student will prepare a blood smear for differential determination. To be rated as acceptable, the student must make a smear using the process described in (Clinical Procedures for Medical Assistants by Kathy Bonewit, (1981, pp. 309-313). The student must also use one of the Wright stains **on the** slide using the process recommended by the manufacturer.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 6

The student will name the blood groups and explain the
significance of each. To be rated as acceptable, the student
must include: 1, ABO/Rh groups; 2, distribution of each
group; and 3, two diseases and related complications possible
in each of the named groups.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VI

INTERMEDIATE PERFORMANCE OBJECTIVE# 7

The student will list at least five coagulation studies used
in physicians' offices. To be rated as acceptable, the
student must indicate a reason for using each and describe
the significance of test findings.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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Course Level Objective

Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

VII



The student will perform chemical tests on blood serum, and plasma. To be rated as acceptable, the student must follow procedures provided in blood test kits.

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VII

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will perform a blood chemistry test for glucose.

To be rated as acceptable, the student must use at least

two methods available in the lab and follow procedures

provided in test kits. Also, the student must explain the

significance of elevated or lowered glucose levels stating

normal glucose level range.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
2.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VII

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will describe the tests classified as nitrogenous
(non-protein nitrogen) compounds. To be rated as acceptable,
the student must: 1, list at least three tests in this
classification; 2, state clinical significance of each of
the three tests; and 3, state normal value for each test.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VII

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

The student will describe the tests classified as nitrogenous
(protein nitrogen) compounds. To be rated as acceptable, the
student must: 1, list at least three tests in this classification;
2, state the clinical significance of each of the three tests,
and 3, state normal values for each test.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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Course Level Objective

Course/Package Name

Medical Office

Laboratory Procedures

CLO Identification

VIII



The student will perform microbiological procedures.
To be rated as acceptable, the student must: 1, culture specimens; 2, set up sensitivity tests; 3, make and stain smears; and 4, differentiate between classifications within microbiology areas, including virus, bacteria, fungus, and parasite.

COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 1

The student will describe organism classifications. To be
rated as acceptable, the student must: 1, describe four
classifications (virus, bacteria, fungus and parasites; and
2, name at least three organisms in each classification.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will culture a bacteriological specimen. To be rated as acceptable, the student must: 1, observe sterile technique; 2, streak the inoculum on an agar plate according to the procedure given in Frederick and Kinn, Medical Office Assistant, (1981, p. 382); and 3, place the streaked plate in a 37°C incubator.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 2

The student will culture a bacteriological specimen. To be rated as acceptable, the student must: 1. sterile technique; 2. streak the inoculum on an agar plate according to the procedure given in Frederick and Kinn, Medical Office Assistant, (1981, p. 382); and 3. place the streaked plate in a 37°C incubator.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 3

The student will make a specimen smear for staining. To be
rated as acceptable, the student must use the procedure given
in Zakus, (Clinical Skills and Assisting Techniques for the
Medical Assistant, 1981, p. 144-145).

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 4

The student will stain a smear for bacteriological study.

To be rated as acceptable, the student must stain the smear

using the procedrue given in Zakus, (Clinical Skills and

Assisting Techniques for the Medical Assistant 1981, p. 145).

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
1.			
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COURSE/PACKAGE NAME Medical Office Laboratory Prodecures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

Given laboratory request slip and a specimen, the student will
prepare a sensitivity plate. To be rated as acceptable, the
student must: 1, choose the requested agar plate for the test;
2, streak the plate with inoculated culture media; 3, place
antibiotic discs on the agar; and 4, put the plate in a 37⁰C
incubator.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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COURSE/PACKAGE NAME Medical Office Laboratory Procedures

COURSE LEVEL OBJECTIVE # VIII

INTERMEDIATE PERFORMANCE OBJECTIVE# 5

Given laboratory request slip and a specimen, the student will
prepare a sensitivity plate. To be rated as acceptable, the
student must: 1, choose the requested agar plate for the test;
2, streak the plate with inoculated culture media; 3, place
antibiotic discs on the agar; and 4, put the plate in a 37⁰C
incubator.

NO.	STUDENT ACTIVITIES	MEDIA	METHOD
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Revised
6/83

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JAN 25 1985